

The Official Newsletter of the Gwinnett Amateur Radio Society

April 2021 <http://www.gars.org/> Volume 30, Issue 4



The

# GARzette

April 2021 GARS Meeting: Jim Fenstermaker K9JF – ARRL Foundation Scholarships



## The Georgia QSO Party



Online GARS meeting Tuesday, April 13, 2021 at 7:00 pm

## President's Message

### From the President...

What's new since I communicated my first President's article? A number of things actually. More Covid-19 vaccinations, news of some pending events, a unique special event station and upcoming ham radio events news.

We just completed our fund-raising event (dog show), and it went well. We encountered a lot of wetness on the first day, but better skies kept us company for the rest of the time, although just a bit, okay, a LOT cooler. Many thanks to David Adcock, KA4KKF for leading this up for us.

Following are a few up and coming GARS Amateur Radio activities you can get involved with if you're feeling the squeeze to get out or get active. I won't mention details as you have probably heard, or will be hearing more about each from the appropriate Chairman. And of course, [www.gars.org](http://www.gars.org).

- Georgia QSO Party Contest 4/10
- Dacula Memorial Day Parade 5/31
- GARS Field Day 6/26

**Special Events** - Hopefully you got the chance to make a contact with one of the Last Man Standing special event stations and will request your QSL card from them.

**Hamfests** - There are even a few ham fests (and the like) in Georgia that have stated they're still happening:

- Savannah Ham Tailgate / Swap Meet April 24,
- Calhoun Ham Fest April 24,
- Tucker Tailgating event May 1st.
- And of course, the Stone Mountain Hamfest in November.

Last April, GARS President John Davis (WB4QDX) wrote: *"Let's hope and pray that in the not too distant future, we can venture out for shopping, eating out at favorite restaurants, attending club meetings and operating events together."*

Working from home, shopping more online and



staying cooped up in our homes became normal for many and for so long. I saw a Vaccine report for Georgia in March that purported that two thirds of those 65 years old and older were now vaccinated. With 55 years old and up eligible on March 15<sup>th</sup> followed closely by those age 16 and up being eligible. Now more people who want the vaccine can get it. Hopefully we'll get favorable reports of this vaccination progress very soon.

So, we've been enduring this over a year now, and here we are. When to meet again in person at the EAA hanger is being discussed within the Executive team. The June meeting has traditionally become our Ice Cream Social / Field Day instructional on how we will conduct our Field Day operation. Since this meeting is held at the Field Day park site, and outdoors, it will make a good opportunity to meet in person again, safely. Of course, we will follow the current recommended CDC guidelines for gatherings. Another small in-person meeting opportunity will be at Field Day itself. Again, at the park, outdoors. This will be small scale compared to a regular meeting, but this will serve to re-introduce ourselves back into some normalcy and eventually back together at the EAA hanger 690. Stay tuned.

Finally, we've formed a **Health and Wellbeing** Committee to field information regarding the wellbeing of our valued GARS family members - chaired by **Sandy Jackson (KJ4DRO)**. Look for it in [www.gars.org](http://www.gars.org) and the Garzette. Use this resource as a means to convey information to the club about the wellbeing of a GARS family member or Silent Key.

Everyone please stay safe as we are hopefully rounding the last turn of this COVID-19 pandemic.

73,

*Joe Biddle, AD4PZ*

**Club President**

## GARS Meetings & Workshops

### GARS Meetings and Workshops

Will be held online until further notice. See <http://www.gars.org> for more information

#### GARS Virtual Login and Zoom Etiquette

Due to COVID-19 the following events are being held via Zoom video conferencing. Login info will be emailed via Groups.io. Subscribe at: <https://groups.io/g/GARS>

**Meetings and Workshops are OPEN to all, feel free to share your invite with others.**

- Workshops and Meetings will be **recorded**. By participating you consent to being **recorded**.
- Please change your display name to Your **FirstName Call Sign**, e.g. **Hiram W1AW**
- **[How to change Your Display Name in Zoom](#)**
- Please stay muted until ready to speak. Your space bar works like a PTT for un-muting
- To be fair to everyone, there will be a three minute limit for each person during Q & A
- You may ask questions in chat; **please stay on topic while using chat**.

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#### GARS Meetings Schedule (second Tuesday @ 7:00 PM):

- April 13, 2021 – ARRL Vice President [Jim Fenstermaker K9JF](#) – ARRL Foundation Scholarships
- May 11, 2021 – **TBD (Your chance to volunteer and tell us about your ham radio project)**
- June 08, 2021 – **TBD (Your chance to volunteer and tell us about your ham radio project)**

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#### Workshop Schedule (third Tuesday @ 7:00 PM):

- April 20, 2021 - [Bob Wilson N6TV](#) - Everything You Need to Know About USB and Serial Interfaces
- May 18, 2021 - [Bennett Smith WB5GVY](#) - Fire Hose - 20 Minute Intro to 6 Meters & Meteor Scatter
- June 15, 2021 - **Your chance to speak - Topic of your choice**

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#### GARS Meeting – April 13, 2021

##### ARRL Vice President [Jim Fenstermaker K9JF](#) – ARRL Foundation Scholarships

Jim Fenstermaker K9JF will present “The ARRL Foundation Scholarship & Grant Programs”. Jim has been a member of the ARRL Foundation for 10 years. Since 2019, he has been the chairperson of the ARRL Foundation Scholarship team.

During this time, the scholarship team has awarded nearly \$1 million in scholarships to deserving student ham radio operators. He has also served as ARRL Northwestern Division Vice-Director and Director for 14 years, and ARRL Vice-President. He was elected as an ARRL Honorary Vice President following retirement from the ARRL Board.

Jim is an active Radio Amateur operator having achieved DXCC Honor Roll #1 (worked and confirmed all DXCC entities, 8 bands Worked All Zones, and the USA-County Award having worked and confirmed all 3077 USA Counties.

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#### GARS Workshop – April 20, 2021

##### [Bob Wilson N6TV](#) Everything you need to know about USB and Serial Interfaces

Bob N6TV is an avid CW Contester, Serial Port Expert/Guru/Wizard, and even sells Serial Box products. See his QRZ bio for more details on his S-Box and S-Box-USB. Bob has been a regular guest speaker at Dayton Contest University (CTU) for over a decade. Plus he has other guest speaker appearances under his belt. So if you use Serial or USB ports to control your rig for contesting, DX, or just want to get the most out of your gig/station you will want to attend his presentation. Seats are limited to the first 100.

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## GARS Communication

<u>2 Meter Repeaters</u>	<u>6 Meter Repeater</u>
147.075(+) MHz Tone 82.5	53.110 (-1 MHz) No Tone (Offline for Maintenance)
147.255(+) MHz Tone 107.2	
<u>1.25 Meter Repeater</u>	<u>Other Resources:</u>
224.580(-) MHz Tone 100.0, 1.6 MHz Offset	<u>APRS</u> 144.390 -- 1200 Baud W4GR
<u>70 Cm Repeaters</u>	<u>D-STAR</u> WD4STR 145.060 + (1.4 MHz) 440.550 + (5 MHz)
444.525(+) MHz Tone 82.5	
442.100(+) MHz Tone 100	
442.325(+) MHz Tone 100	

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P.O. Box 492531  
Lawrenceville, GA 30049

## Notable Web Links

Ham Radio Glossary: <https://noji.com/hamradio/glossary.php> a very comprehensive listing provided by Noji Ratzlaff KNØJI. On his site there is also a lot of information about getting started in ham radio.

## Need Help – Let GARS Elmers answer your questions

Send an email to [elmers@gars.org](mailto:elmers@gars.org) with the subject listing the area (like Antennas, Repeaters, Digital, DMR etc.) of your query to get to GARS Elmer volunteers.

The *GARzette* is the official monthly newsletter of the Gwinnett Amateur Radio Society, serving its members and other persons interested in the advancement of the Amateur Radio art.

Original articles, art, and photos are invited and encouraged. Previously copyrighted submissions cannot be accepted for reprinting unless permission from the appropriate publisher is provided in writing along with the information being submitted. If reprints are from publications allowing their unrestricted use, please include a copy of the printed permission contained in the publication.

If possible, bring your articles to the monthly meeting in Microsoft Word or rich text (.rtf) or text or HTML format or by e-mail to [editor@gars.org](mailto:editor@gars.org). Artwork can be accepted in most any graphics format and can be submitted via e-mail to the same address. Alternate means of submittal can be arranged when necessary.

In keeping with the Amateur Radio spirit, permission is hereby granted for the reproduction of The *GARzette* articles by other Amateur Radio club newsletters provided that proper credit is given to the individual author and The *GARzette*.

The *GARzette* is published each month with the assistance of Karen KI4HPP and Kyle W4KDA who print copies for distribution at meetings, etc. and Dave Bruse, W4DTR, who distributes the newsletter electronically.

Deadline for submissions is the 28th of each month for inclusion in the following month's issue.



For additional information view our Website at: <http://www.gars.org>

Newsletter Email: [editor@gars.org](mailto:editor@gars.org) Editor: Bob Hoffman, K4CQO Assistant Editor: Bill Eggers, WB2RIS

## GARS HELP WANTED

Speakers Needed for GARS Workshop Presentations, 3<sup>rd</sup> Tuesday of the month – Email [workshop@gars.org](mailto:workshop@gars.org) to volunteer.

[PS— Articles to publish in the *GARzette*, either written by GARS members or published elsewhere, are always welcome. —Ed.]

## GARS Happenings

### 20 Years ago in the April 2001 GARzette:

- There was an article writeup on a GARS ham radio demo at the Lilburn Elementary School
- Field Day planning started
- GARS is going to the Richard Middle School in April
- GARS help at the Dog Show was going on 20 years ago
- GARS listed Elmers to help others – there were 11 Elmer volunteers

You can always browse the GARzette archive at <http://www.gars.org/newsletters>  
 73, Bob, K4CQO, GARzette Editor



With over 300 members GARS is an active part of the Amateur Radio community serving the North Metro Atlanta area.  
<http://www.gars.org>

### GARS HamCram Technician License Class Saturday, April 24 2021 and Sunday, April 25 2021

This is an entry level study session. For more information on the test session [click here](#) to email the instructors.

#### STUDY GUIDE:

We will be using the [hamradioschool.com](http://hamradioschool.com) material.

#### CLASS:

8:00 am to 4:00 pm Saturday and 8:00 am to 3:00 pm Sunday. Thirty Minute Lunch Break with lunch brought in, both lunches and test for \$25.00

[EAA hangar Briscoe Field Lawrenceville, GA near the intersection of HWY 316 & Hi-Hope Road](#)

#### EXAM SESSION:

3:00 pm to 5:00 pm Sunday

This exam session is a closed session only available to those students who sign up for the class.

#### REGISTRATION:

\*\*\* Pre-registration is Required \*\*\*

\*\*\* There is a no refund policy for no shows \*\*\*

Go to [GARS.org](http://GARS.org) for the registration links



### TECHNICIAN LEVEL LICENSE

### (INTRODUCTORY LEVEL LICENSE)

MAY 1, 8 & 15, 2021

AMERICAN LEGION POST 294

3282 FLORENCE ROAD, POWDER SPRINGS, GA 30127

**Students must attend all three classes. Classes are from 8:00 AM until 3:00 PM. There are no facilities for meals so you must bring your own or go out for lunch. We will take lunch from 11:00 AM to 12:00 NOON. There are restaurants nearby.**

Students must register for the class. The ARRL Technician Manual will be used for the class. You can purchase the manual from the ARRL at [www.arrl.org](http://www.arrl.org) or from Amazon. You can also purchase the manual from Ham Radio Outlet, 6071 Buford Highway, Atlanta (about two miles North of I-285 on the right) or [www.hamradio.com](http://www.hamradio.com).

There is no fee for the class or for the FCC Exam at the conclusion of the class. **For more information or to register, please contact ELDEN MORRIS, N1MN at 770-713-4403 or by e-mail at [N1MN@ATT.NET](mailto:N1MN@ATT.NET)**

### Dacula Memorial Day Parade

The Dacula Memorial Day Parade is a go this year! Marvin Atherton, parade organizer, called tonight with the news that the mayor of Dacula gave the OK to hold one of the area's premier events on May 31<sup>st</sup>. GARS has agreed to help marshal the participants again continuing an association of more than 20 years with this event.

Canceled last year due to the Covid crisis, the parade usually takes more than five months to select a theme, secure the necessary permissions, organize 150 participants and do the hundred other things to make the parade a success. There isn't time to do all that so the parade will necessarily be smaller and may be a bit more chaotic. There probably won't be as many people this year as in previous years either as participants or spectators, but it will still be outside and offer a chance to use our radios while serving our community. Look for more information in the weeks ahead, in the meantime the sign-up sheet is posted on [GARS.org](http://GARS.org).

## Net Managers Corner

### Monday Night 2 Meter “Want, Swap, Sell, and Information Net”

### GARS NEEDS MEMBERS TO SERVE AS NET CONTROL STATIONS!

**GARS is a great Amateur Radio service club** and we have the membership and awards to prove it. Our club is a very busy and active club and we use the Monday night net to get the information out to our members. Weekly participation is needed to make our net function well. There is only a small group of very dedicated people that make the net happen each week, and we need more members to volunteer to serve as Net Control Stations (NCS) on a rotating basis.

Out of almost 300 members, there are only **SEVEN** primary people who serve as NCS for the GARS net every Monday night. In no particular order, they are:

Don - KW4AL

David - KA4KKF

Russell - AB4QQ

Ray - N4GYN

Kevin - KK4WOG

Bill - KK4AUA

Chuck - KK4TKJ

As GARS Net Manager (Chuck KK4TKJ), I really need 26 people to fill NCS positions. I do plan and post the schedule months in advance. Any conditions will be accommodated that you as a rotating NCS need to place on the scheduling of your duties. If your plans change, I can make adjustments for the schedule to work, and I will make those changes happen as soon as I am notified of a problem. As Net Manager, I also send out reminders each week to let the NCS scheduled know he or she is NCS for the next Monday night net. In short, serving as a rotating NCS is a small duty but a great contribution to the club.

The “Want, Swap, Sell Information Net” begins promptly at 19:30 every Monday night and runs about 45 minutes. As a scheduled NCS, you will request the assistance of a volunteer alternate NCS each time you have Net Control. Your simple duties will be to tune in to the GARS repeater, read the script, take a few notes and forward the information to me for record keeping.

Please lend a hand and contact me at [KK4TKJ@arrl.net](mailto:KK4TKJ@arrl.net). Sign up to help support the effort that makes GARS the great club that it is.

73 and see you on the Nets!

*Chuck McCord, KK4TKJ*

GARS Net Manager

## Local Ham Swap

### Alford Memorial Radio Club Spring Tailgating Event in Tucker Ga. May 1st, 2021 Ham Swap

Since many Hamfests and swap meets have been cancelled due to COVID-19, it was suggested that the local hams put one together for anyone that wants to sell some equipment they have or find something they need for their shack. AMRC Alford Memorial Radio Club will be having a Tailgate Swap Meet on May 1st in the rear parking lot of Tucker Recreation Center, located at:

- 4898 Lavista Rd, Tucker, GA 30084 in Tucker, Ga.
- We plan to get started around 8:00 am, till 4 pm.

Google Maps Talk-in frequency will be the W4BOC 146.760 (- offset) PL 107.2 repeater. Alford Memorial Radio Club (W4BOC) will not be charging a fee. Coffee and donuts will be available in the morning, drinks, and hot dogs available for lunch. Donations will be greatly appreciated to offset our cost. Bring your own masks, hand sanitizers, gloves, tables, and chairs.

Because COVID-19 is still an issue, we will take all CDC mandated precautions to ensure that everyone remains safe. Anyone attending is encouraged to follow distancing guidelines. The area of the parking lot we plan to use is large enough to allow anyone to gather without being too close together.

- Alford Memorial Radio Club (W4BOC) will not be charging a fee.
- Coffee and donuts will be available in the morning, drinks, and hot dogs available for lunch.
- Donations will be greatly appreciated to offset our cost.
- Bring your own masks, hand sanitizers, gloves, tables, and chairs.
- Anyone attending is encouraged to follow distancing guidelines and to wear a mask if maintaining 6 ft distance is not possible.

While it will not have the same feel as Hamfests, we hope this provides hams in the Atlanta area an opportunity to find something new for their shack, and chat about radio-related subjects.

Theoan LeDoux, KM4OXG President Alford Memorial Radio Club, Stone Mountain, Ga.

## GARS Support for the 2021 Dog Show

### GARS & the 2021 Lanier Cluster Dog Show

Since many Hamfests and swap meets have been cancelled due to COVID-19, it was suggested that GARS and ARES provided services to the cluster this year for 5 days. Wednesday was a wet day. It rained from about 1130 to 1400 when we left. Thursday and Friday, Saturday, Sunday were Chili in the mornings and warmed up in the afternoon. We made do with all the volunteers and was successful. They are hoping to draw the public next year. We had fun and met some hams from other states that were along for the ride with their wife. Next year will probably be a 4 day show again. You should give it a try sometime. Getting there at 0545 in the morning and watching the sun rise is a great way to start your day.

See you next time.

David  
KA4KKF



Joe AD4PZ



Russel AB4QQ



Ralph KJ4CNC & Joe AD4PZ

The members that volunteered:

KA4KKF	David
KJ4CNC	Ralph
KB6RRX	Doug
AK4AM	Alex
AB4QQ	Russell P
AF4FG	Earl
WG9NUW	Bill

N4DDM	Dallas
WS4TOT	CHARLIE
W3DJS	Dave
AD4PZ	Joe
W3WWT	Glen
KO4OVZ	Eric
AG4LK	Carter

W7ALS	Andre
W4IGE	Hal
KO4JWM	Hiroko
KN4VCQ	Steve
KH6KP	Alan
WB4QDX	John
WB2OGY	Steve

N4MEP	Mike
WR1TR	Bill
KX4HA	Jamie
KN4FWN	Fisher

## New Add-on Utility for WSJT-X

### New add-on utility “update\_wsjtx\_log.py” v1.1.1 released for users of WSJT-X

By: Dave Slotter, w3djs@arrl.net

Users of WSJT-X who use its logging facility for keeping track of awards or QSL cards may notice that the WSJT-X log dialog always displays with an empty “Name” field. In addition, depending on how other operators operate their own instance of WSJT-X, you may also end up with an empty grid square field.

As a power user of WSJT-X, I became tired of manually looking up hams’ names and grid squares, so I created a utility application called “update\_wsjtx\_log.py”. It is a Python application that monitors the WSJT-X logfile and when it discovers a new log entry written to the file, automatically uses a callsign service, such as QRZ.com or Callook.info to fill in the missing information.

“update\_wsjtx\_log.py” requires the installation of two Python 3 libraries: Requests and Watchdog.

This Python application has been successfully tested with Python 3 and a Raspberry Pi 4B running HamPi, although this should be easily used on other Linux or Mac systems with Python 3. It has not been tested under Windows with Python 3. Developers note: it has also passed scrutiny by Pylint 3 and Flake8.

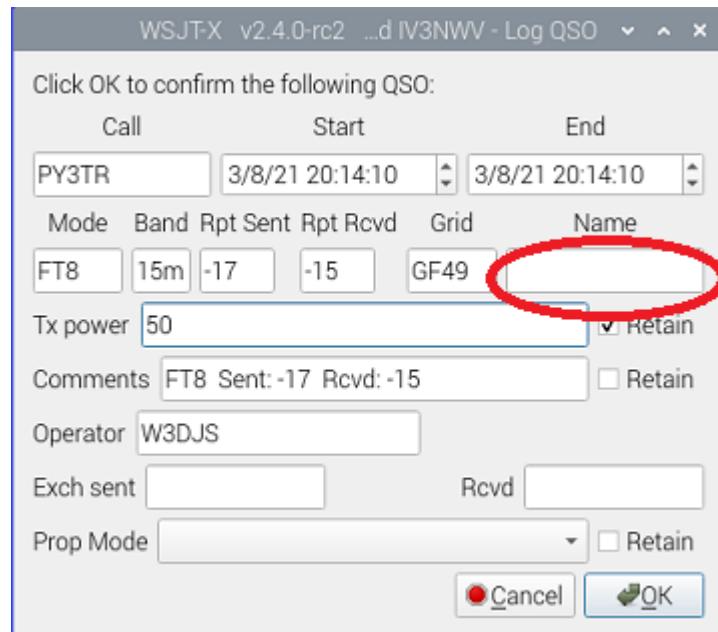
To use: download the “update\_wsjtx\_log.py” application, install the Requests and Watchdog libraries and start up WSJT-X as well as the application. If you are using QRZ as a data source, you should set the QRZ\_USERNAME and QRZ\_PASSWORD environment variables prior to running the application. If you are not running on a Raspberry Pi or you have relocated your WSJT-X data folder, then edit the line which starts with “WSJTX\_LOG\_PATH” at the top of the script to point to the correct location.

The Python application “update\_wsjtx\_log.py” may be found here:

[https://github.com/dslotter/ham\\_radio\\_scripts/blob/main/update\\_wsjtx\\_log.py](https://github.com/dslotter/ham_radio_scripts/blob/main/update_wsjtx_log.py)

Additional backend callsign lookup services, such as HamQTH, may be added in the future if there is demand.

One last caution: do not independently edit the WSJT-X log file while this application is running, or bad things will happen. It cannot differentiate between WSJT-X appending new log entries or a ham manually editing the file.



## Hallicrafters SR-150 - Desktop Station

### Vintage Amateur Radio

de Bill Shadid, W9MXQ

The new age of ham radio that began with the Collins S-Line (including the KWM-2) was not to go on forever as a Collins only domain. In 1961, the competition began to step up to the challenge. Bill Halligan, W9AC<sup>1</sup>, led his successful amateur radio manufacturing company, the Hallicrafters Company, into the lighter weight, desktop world with the introduction of the ultimately successful SR-150 HF SSB/CW Transceiver. For your reference, here is the Hallicrafters SR-150 Station that is in frequent operation at W9MXQ . . .



**Hallicrafters SR-150 Transceiver and HA-1 'TO Keyer  
Shown with Hallicrafters PS-150-120 AC Power Supply/Speaker**

**Also, Turner 254C Microphone and Vibroplex VibroKeyer (non-Iambic) Key  
(W9MXQ Shack Photo)**

Not to be a too much of a “me too” radio, Hallicrafters took the concept of the Collins KWM-2 and made significant changes in design to make the SR-150 a step in a somewhat different direction.

The SR-150 did not use traditional transmitting tubes, such as the popular RCA 6146 tetrode of the day. Indeed, Hallicrafters was, using the RCA 6146 tubes in their popular HT-32 Series and HT-37 desktop transmitters. The SR-150 final amplifier used a pair of 12DQ6B/12GW6 Tetrodes originally designed to be horizontal oscillator (sweep) tubes in television sets. Hallicrafters was perhaps the first to understand that these “sweep tubes” had real merit, durability, and frequency performance, in some designs, well above the HF bands. To this day, the dedicated transmitting tube vs. sweep tube argument goes on. From a cost and performance standpoint, the sweep tubes were the equal of and perhaps superior to the 6146 and its successors. This is said from the point of view of the cost and performance perspective of the manufacturer. Ultimately, such very popular and market competitive products from Swan and Drake, as well as lesser volume producers such as Galaxy, National, as well as Hallicrafters itself thrived on sweep tubes and never returned to “real transmitting tubes.”

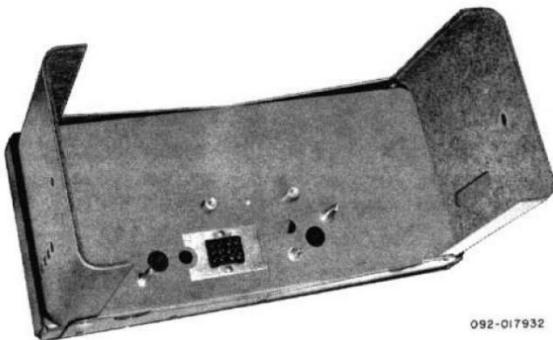
Hallicrafters, in its earlier days with SSB transmitters and transceivers, was never a producer of maximum power radios. The SR-150 was no exception with its 150 watts PEP input power and a resulting 80 watts PEP output. CW was rated at 125 watts input with an output of 65 to 70 watts. The receiver was not only very competitive, its dual conversion design was (and remains) one of the quietest designs on the market. To this day the SR-150 in my shack provides an eerily quiet receiver that on a dead band makes one wonder if it is working. But, working it is – when a signal is present it is every bit

as sensitive as my Collins 75S-3B, Collins KWM-2A, or Hallicrafters SX-117 from the same era. Even a similarly quiet receiver design, such as the Drake R-4 series, is not a match for the sound from the SR-150. Experience it if you can.

The identified competition, the Collins KWM-2, had significant, if not terminal issues with CW operators that were improved over the years but never fully corrected unless the user opted for a very expensive accessory, the 312B-5 External VFO and Console. Collins had ignored the need to provide for a proper offset allowing a tone to be heard (to copy the other station's signal) and remove the need to keep retuning the receive frequency. Hallicrafters introduced a feature we use to this day – Receiver Incremental Tuning (RIT) that allowed a tunable offset of the receiver (only) so one could comfortably tune an SSB or CW signal. To take it another step, not only did Hallicrafters add this incredible (at the time) feature, they did so with a new technology device called a Varactor Diode. You can read about Varactors and they are not, as a device, the subject of this article – rather, their use is the subject. Suffice it to say, and very simply stated, Varactor Diodes provide an electrically variable capacitance to pull the SR-150 VFO receive frequency plus or minus about 2 kHz (2 kilocycles, back then!!).

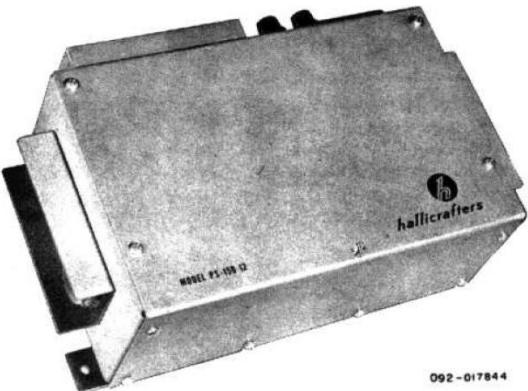
Hallicrafters followed the lead of Collins in providing no interference fighting circuitry<sup>2</sup> on the SR-150. That was followed later with reasonable features on Hallicrafters competition for the Collins S-Line, the transceive capable separate Receiver and Transmitter and Linear Amplifier setup – the SX-117, HT-44, and HT-45, respectively. Those items are the subjects of future articles.

The SR-150 was offered with a variety of accessories<sup>3</sup> to adapt it to home or mobile use. (All accessory pictures are from the Hallicrafters SR-150 Operations Manual.)



This is the MB-150 Mobile Mounting Bracket for the SR-150 Transceiver. The sides (left and right) were padded and the would fold away (toward the back) when not in use. The bracket was designed so that sliding the SR-150 into the mount would direct all rear connectors to quick disconnect sockets in the mobile mount. No hand connection/disconnection of wiring was required for installation.

The SR-150 Transceiver was compact for its day but not much different in size from its competitor, the Collins KWM-2. Hallicrafters and Collins tried hard in their designs to make the mobile mount as unobtrusive as possible when the radio was removed from the automobile.



This is the PS-150-12 DC Power Supply for the SR-150 Transceiver. This very nicely styled package was designed to be mounted in the trunk of the automobile. The power input required was nominal 12 VDC automotive electrical system power. There was no provision for 6VDC operation with this power supply so generally it required a vehicle made 1955 or later for operation.



This is the PS-150-120 AC Power Supply for the SR-150 Transceiver (and other Hallicrafters radios). You saw this in the intro photo in this article. But, it is a rather elegant competitor to the Collins 516F-2 AC Power Supply that used two vacuum tubes. The PS-150-120 was all solid-state. The two PS-150-120 units in use at W9MXQ have shown 100% reliability over many years.

Hallicrafters used rather low plate voltages (and therefore higher current) in their radio power amplifier designs. The PS-150-12 and PS-150-120 provide 575 volts DC at about 260 mA (more current was available and used in later radios with the PS-150-120). There was also low HV (250 VDC) for lower level transmitter and receiver circuitry plus there was transmitter tube bias (-125 VDC) and filament voltage for the radio (12.6 VAC). The PS-150-120 even had provisions to easily read voltage and current on the HV line with a common Volt-Ohm-Meter (VOM).

One great feature of similar vintage Hallicrafters transmitters (and the transmitter within their transceivers) was ultra-simple tuning of the tank circuitry. While many radios had a relative long procedure of tuning the grid for proper grid drive while adjusting Tune and Load controls for proper plate current to get rated power. Hallicrafters capitalized on the fact that many hams were using commercially available or homebrew beam, vertical, and wire antennas that had a fixed impedance of 50-75 ohms. So, load became fixed at 50-75 ohms (with the resulting removal of the Load control from the radio). Tuning the SR-150 (or the HT-37, HT-32, and later HT-44 Transmitters) involved the use of an output meter peaked by the Preselector (Grid) and the Output (Tune) controls. No loading and "dipping" of the plate current meter on the competition's radios. Tuning a Hallicrafters transmitter was virtually instantaneous when compared to the competition. Obviously, other antenna designs and impedances required an external antenna matching unit. The E. F. Johnson "Matchbox" tuners were popular for such applications in those days.

In closing, I must say that this radio is a favorite of mine. The entire Hallicrafters line into the 1970's was, in my opinion, some of the finest, best performing, and long term dependable radios marketed to the ham radio community at a competitive price. And, returning to my previous comments on "Desk Presence," Hallicrafters comes very close to Collins. The SR-150 Transceiver is difficult to find today with good appearance and operating condition. Most I see advertised are not working or have appearance issues. But, the most important trait in vintage radio collecting is patience in the search process. My SR-150 came from an estate perhaps five years ago. I am only the second owner of this radio.

And one more thing in this month's installment . . .

I would be remiss in not mentioning another Hallicrafters early SSB Transceiver that was introduced ahead of the Collins KWM-2, and more in keeping with the introduction of the original Collins S-Line. That would be the very advanced Hallicrafters FPM-200 HF SSB/CW/AM Transceiver that was produced more as an engineering exercise than a viable product, as it turned out. It was just too far ahead of its time.



This FPM-200 is owned by fellow collector, W8ZR. These radios were never fully marketed and it is felt that fewer than 200 of them were made and sold – less exist today. Hallicrafters sponsored DX-Peditions and other events with the FPM-200. There were even some events in cooperation with the United States Air Force with FPM-200 equipped cross-country flights.

**W8ZR Photo**

Perhaps more details on the FPM-200 can be in a future article. It was almost unbelievable as a solid-state radio in a vacuum tube world. It had dual VFO's and a high concentration of printed circuit board assembly. The only vacuum tubes were two 6146's in the Final Amplifier, a 12BY7A Driver, and two OB2 Voltage Regulators. This radio's finals produced about 70 watts SSB PEP output and about 45 watts on CW. Today these radios would be hard, if not impossible, to maintain with their high population of unobtainable Germanium transistors. Like the Germanium transistor equipped National HRO-500 Receiver in my radio collection, some of these radios are best displayed and perhaps rarely used! At the same time, modern vacuum tube radios of the time-period are as viable today as they were then.

The SR-150 Transceiver that is the subject of this article is in regular operation at W9MXQ. It is most often used with another Hallicrafters product of the same time, the matching HT-45 Linear Amplifier (subject of a future article) with its floor mounted AC Power Supply. The HT-45 Linear Amplifier with its 40- to 50-watt drive requirement was ideally suited for use with the typically 60- to 70-watt output of the SR-150. The HT-45 used a new triode from Eimac called the 3-400z. That tube was to later advance to the well-known today, similar concept, 3-500z and 3-1000z triodes.

In closing this article, here is a picture of the SR-150 Transceiver with the HT-45 Linear Amplifier (subject of a future article) – shown with appropriate accessories:



**Left to Right:**

**HT-45 Linear Amplifier, SR-150 HF Transceiver,  
PS-150-120 Power Supply/Speaker, and HA-1 Electronic Keyer<sup>4</sup>**



**(shown with the Astatic D-104 Microphone, Hallicrafters HA-8  
Splatter Guard, and the Vibroplex VibroKeyer Key)  
(P-45 Power Supply for the HT-45 is floor mounted)**

(W9MXQ Shack Photo)

The SR-150 introduced a style and basic electronic design philosophy that lasted in a wide variety of models into the early 1970's when Hallicrafters, long before that acquired by Northrup Aviation, left the amateur radio market and focused on aircraft electronics. All these models - including separate receivers and transmitters in the Hallicrafters amateur radio business – are in future articles in this series.

I appreciate that you read my articles. Remember that I am open to questions and comments anytime at my email address, [W9MXQ@TWC.com](mailto:W9MXQ@TWC.com).

A special note of thanks to my proofreader, Bob Bailey, W9DYQ. Bob is a bit more than a proofreader as he often adds commentary that makes it into the various articles. Bob and I share a special interest in Hallicrafters' many products.

**Credits and Comments:**

<sup>1</sup> This call has been re-assigned since the passing of Mr. Halligan. Another call associated with Halligan is W9WZE which is now the call of "Halligans Hallicrafters International" that is a Hallicrafters aficionado website and organization. Check <http://w9wze.net> for more details.

<sup>2</sup> Early transceivers in ham radio shared this lack of interference fighting technology. Many good interference fighting systems existed at the time – including effective Noise Blanker circuits that had been around since the 1930's – and Hallicrafters itself incorporated that feature in its 1940's SX-28 Receiver. Perhaps – and this is strictly my own opinion – it was thought that such features were left to the home station separate receiver and transmitter setup. That was the dominant setup at the time of the first Collins KWM-1 and KWM-2 as well as the Hallicrafters SR-150 Transceiver in this article.

<sup>3</sup> Accessory photos are from the Hallicrafters SR-150 Operating and Service Manual.

<sup>4</sup> The HA-1 Electronic Keyer shown has knobs that match the earlier Hallicrafters SX-111 Receiver, HT-37 Transmitter, and HT-41 Linear Amplifier from about 1959. Seemingly there was a later version, perhaps HA-1A, that differed pretty much only in the use of the knobs that matched the SR-150 and other radios of the time. I have never seen one of these except where I suspect the knobs had been changed by the owner to make his/her accessory match the station transmitter or transceiver.

© W9MXQ

The entire article is available on-line, see  
[http://www.qars.org/newsletters/2021\\_04\\_GARZETTE.pdf](http://www.qars.org/newsletters/2021_04_GARZETTE.pdf)



## GARS Membership

### March New GARS Members

Brian Chambers (KO4OHG)  
Benjamin Goings (KM4RTO)  
Scott Karlins (KO4NXZ)  
Chris Mattox (KO4NYB)  
Ricardo Medina (KO4OFG)  
Zachary Pratt (KO4NZB)

### New Members: 6

**Total Members as of  
April 1, 2021  
341**

Join GARS members for our weekly breakfast gathering at  
7:30 AM most Saturdays  
Now at  
Cracker Barrel Restaurant  
75 Celebration Dr.  
Suwanee, GA 30024

### April GARS Birthdays

Chuck Adams (KV4VT)  
Angelo Bione (WB9RWL)  
David Bisciotti (KO4USA)  
Jim Boyd (KJ4YN)  
Paul Branson (KA4YZR)  
Donna Broome  
Doris Brown  
Charles Burts (K4CHB)  
Mark Case (K5MTC)  
Scott Deitchman (WB8ICQ)  
Ana Dominguez (KF4UOC)  
Emma Guidry (K4ECG)  
Stan McDonald (KI4H)  
Richard Morris (KG4BVU)  
Michael Parrott (N4MEP)  
Gemarl Perry  
Russell Prevost (AB4QQ)  
Linda Tcimpidis (W6LWT)  
James Vanterpool (KO4DEC)  
Keith Wells (WA8B)  
Evelyn Whalen (KE4PLW)

### GARS MEMBERSHIP

Your current GARS membership status is shown in the monthly newsletter e-mail towards the bottom of the message.

To become a GARS member, or to renew your GARS membership, please visit our website—<http://www.gars.org>

To make changes to your GARS membership (moved, new e-mail address, new phone number, etc.), please e-mail the Membership Committee - [membership@gars.org](mailto:membership@gars.org)

You can renew or update your Amateur Radio license information with the FCC at their website for free  
<http://wireless.fcc.gov/uls/index.htm?job=home>

To update your ARRL information, please visit their website - <http://www.arrl.org>

Membership Chair: Karen Albritton, KI4HPP

Committee Members: Dave Bruse, W4DTR



## Repeater Status

6M	Currently down
147.075	Operational in Snellville
147.255	Operational in Snellville
224.580	Operational in Grayson
442.100	Operational at Goshen Springs
442.325	Operational in Buford
444.525	Operational in Snellville
Link remote receivers being added	

## Donating to GARS

Your GARS donation can be used for a certain purpose by donating to one of these funds:

- GARS SK Memorial Fund for Education (to remember and honor Silent Keys);
- GARS Scholarship Fund (Administered by the ARRL for awarding scholarships);
- GARS General Fund (any club purpose).

GARS has joined these rewards programs (a portion of every purchase you make through these merchants may be donated to GARS):

- Amazon Smiles;
- Kroger Community Rewards program.

For more information on how to sign up for these rewards programs, or to donate to GARS, visit

<http://gars.org/gars/donations-to-the-club>

## GARS on Social Media



Discord Request:  
<http://gars.org/discord>



Groups.io:  
<http://gars.org/groups.io>



Visit GARS on Facebook:  
<http://gars.org/facebook>



Follow GARS on Twitter:  
<http://gars.org/twitter>



Join GARS on YouTube:  
<http://gars.org/youtube>

Officers		
Joe Biddle, President	AD4PZ	
Jamie Burns, Vice President	KX4HA	
Bill Hawkins, Secretary	WR1TR	
Pam Meridy, Treasurer	WB1AKQ	
Kevin Scott, Program Manager	K4GTR	
Managers and Committee Chairs		
Karen Albritton, Membership Chair	KI4HPP	
Dave Bruse, VE Team Leader	W4DTR	
David Adcock, Webmaster and Field Day Chair	KA4KKF	
Ralph Pickwick, Apparel Manager and Education Chair	KJ4CNC	
Glen Wendt, TechFest Chair	W3WWT	
Bob Hoffmann, GARzette Editor	K4CQO	
Eddie Foust, Repeater Chair	WD4JEM	
Mike Weathers, WAS / DXCC QSL Card Checker and Historian	ND4V	
Chuck McCord, Net Manager	KK4TKJ	
Steve Back, Technical / RFI Advisor	WB2OGY	
Joe Biddle, Winter Field Day Chair	AD4PZ	
Kyle Albritton, Multimedia Chair	W4KDA	
Don Stewart, Elmer Manager	KW4AL	
Dave Slotter, Georgia QSO Party Chair, Workshop Leader and Public Information Officer	W3DJS	
Directors and Trustees		
John Davis, WB4QDX	Rick Cobb, N4XYY	
Mike Weathers, ND4V	Bill Cherepy, WB4WTN W4GR Trustee	

## GARS Meeting Minutes

### Gwinnett Amateur Radio Society – GENERAL Meeting Minutes 3/9/2021

President Joe Biddle (AD4PZ) and Opened the meeting at 7:00pm and Closed the meeting at 8:35 pm

(Covid-19 Alternative Online)

~~EAA Facility, 690 Hanger Rd. Lawrenceville, GA.~~

Online participants: 56

Treasurer Report: Joe (AD4PXZ)

- Presented the financial report.
- Reported \$128.62 from Amazon donations

Membership Report: Joe (AD4PXZ) reported the Membership is at 345

Education – Ralph (KJ4CNC) announced first Ham Cram since covid being planned. Date to be announced.

Programs – Kevin (K4GTR)

- April – Jim (K9JF) will discuss scholarships

Workshop – Dave (W3DJS) announced the following upcoming Workshops:

- March -Rich (K0PIR) will present on portable and RV mobile operation.

Fundraiser (Dog Show) – David (KA4KKF) The Dog Show is still a 'go'. March 31st – April 4th

- It is Easter weekend
- We don't know what the full scope of the job will be.
- Currently planned for all outdoor show.
- Sign up from link on GARS web site

GA QSO party W3DJS

- Date April 10 - 11
- At home operation
- KA4KKF will run the dashboard so we can track activity
- There will be awards for most contacts
- Logs will be submitted under the club name GwinnettARS

Stone Mountain Hamfest - Ralph KJ4CNC – The Hamfest is a go for this year

Program - Neil Foster (N4FN) – The Art of QSL'ing (or how I learned the hard way)

**\*\*Future Event dates** are recorded at the time of the General Meeting and subject to change.

Submitted by: **Bill Hawkins (WR1TR)** GARS Secretary

### Workshop Minutes - March 16, 2021

**Number in Attendance:** 42

**Workshop Topic:** Improve your portable and RV mobile operation

**Presenter:** [Rich Donahue K0PIR](#)

**Brief Summary:** Rich used selected clips from his YouTube videos to put together his presentation of his portable and RV sites. Included were clips of his; Antenna Launcher that uses a 22-cal blank to launch lines over tall trees. The use of a Mini600 Antenna Analyzer, his selection of various antennas depending on the trees (or lack of) at each site. Use of solar power and selection of RFI quite inverters.

**DX Visitor:** [VK2WS aka KX4KL](#) Fred from Australia.

**Door Prize Winners:** Danny KI4KXO and Ricardo KO4OFG - 10\$ HRO Gift Certificates.

Submitted by: Dallas N4DDM

## Events – GARS and others

ARRL CONTESTING INFO	HAMFEST CALENDAR
<p><b>From ARRL Contest Calendar</b>  <b>&gt; For more information click the links &lt;</b></p> <p><b>April 2021</b>  11 <a href="#">Rookie Roundup – Phone</a>  (no ARRL contests in May)</p> <p><b>June 2021</b>  12-14 <a href="#">June VHF</a>  19 <a href="#">Kid's Day</a>  26-27 <a href="#">Field Day</a></p> <p><b>July 2021</b>  10-11 <a href="#">IARU HF World Championship</a></p> <p><b>August 2021</b>  7-8 <a href="#">222 MHz and Up Distance Contest</a>  14-15 <a href="#">10 GHz &amp; Up – Round 1</a>  15 <a href="#">Rookie Roundup – RTTY</a></p> <p><b>September 2021</b>  TBD <a href="#">EME - 2.3 GHz &amp; Up</a>  11-13 <a href="#">September VHF</a>  18-19 <a href="#">10 GHz &amp; Up - Round 2</a></p> <p><b>October 2021</b>  18-22 <a href="#">School Club Roundup</a>  TBD <a href="#">EME - 50 to 1296 MHz</a></p> <p><b>November 2021</b>  6-8 <a href="#">Nov. Sweepstakes - CW</a>  20-21 <a href="#">Nov. Sweepstakes - Phone</a>  TBD <a href="#">EME - 50 to 1296 MHz</a></p> <p><b>December 2021</b>  3-5 <a href="#">160 Meter</a>  11-12 <a href="#">10 Meter</a>  19 <a href="#">Rookie Roundup – CW</a>  18-19 <a href="#">EME - 50 to 1296 MHz</a></p> <p><b>January 2022</b>  1 <a href="#">Straight Key Night</a>  1 <a href="#">Kid's Day</a>  8-9 <a href="#">RTTY Roundup</a>  15-17 <a href="#">January VHF Contest</a></p> <p><b>February 2022</b>  14-18 <a href="#">School Club Roundup</a>  19-20 <a href="#">International DX – CW</a></p> <p><b>March 2021</b>  No planned contests</p> <p>For more information:  <a href="http://www.arrl.org/contest-calendar">http://www.arrl.org/contest-calendar</a></p>	<p>[Please confirm the status of a Hamfest before making plans to attend. – Ed.]</p> <p><b>04/24/2021 - Calhoun Hamfest</b>  Location: Resaca , GA  Type: ARRL Hamfest  Sponsor: Cherokee Capital Amateur Radio Society  Website: <a href="http://">http://</a></p> <p><b>04/24/2021 - Savannah Area Swap Meet Hamfest</b>  Location: Savannah, GA  Type: ARRL Hamfest  Sponsor: Coastal Amateur Radio Society  Website: <a href="http://coastalamateurradiosociety.net/wpW4LHSblog/?page_id=1001">http://coastalamateurradiosociety.net/wpW4LHSblog/?page_id=1001</a></p> <p><b>05/29/2021 - Wormfest</b>  Location: Pinellas Park, FL  Type: ARRL Hamfest  Sponsor: The Glorious Society of The Wormhole  Website: <a href="http://w4orm.org/">http://w4orm.org/</a></p> <p><b>06/12/2021 - 2nd Annual Pre-Field Day Tailgator Gathering</b>  Location: Dade City, FL  Type: ARRL Hamfest  Sponsor: Dade City Masonic Lodge  Website: <a href="http://dadecitymasoniclodge.com">http://dadecitymasoniclodge.com</a></p> <p><b>06/12/2021 - K4KDI Summer Tailgate 2021</b>  Location: Orlando, FL  Type: ARRL Hamfest  Sponsor: South Conway Baptist Church  Website: <a href="http://">http://</a></p> <p><b>06/19/2021 - Black Warrior Hamfest</b>  Location: Northport, AL  Type: ARRL Hamfest  Sponsor: Black Warrior Hamfest  Website: <a href="http://BlackWarriorhamfest.org">http://BlackWarriorhamfest.org</a></p> <p><b>08/14/2021 - Fort Pierce Hamfest</b>  Location: Fort Pierce, FL  Type: ARRL Hamfest  Sponsor: Fort Pierce Amateur Radio Club  Website: <a href="http://FPARC.ORG">http://FPARC.ORG</a></p> <p><b>08/21/2021 - 08/22/2021</b>  <b>Huntsville Hamfest, ARRL Southeastern Division Convention</b>  Location: Huntsville, AL  Type: ARRL Convention  Sponsor: Huntsville Hamfest Inc  Website: <a href="https://hamfest.org">https://hamfest.org</a></p> <p>When searching by division, remember some states adjacent to GA are in different divisions:  Southeastern: GA, AL, FL Delta: TN Roanoke: NC, SC</p>



GARS Events Calendar for 2021		GARS Recurring Calendar	
<a href="#">TechFest</a> General HamCram Dog Show Fundraiser <a href="#">Georgia QSO Party</a> North metro area Fox Hunt <a href="#">Memorial Day Parade</a> <a href="#">ARC/KARC Hamfest</a> <a href="#">Field Day</a> Tech HamCrams <a href="#">JOTA</a> <a href="#">Maker Faire</a> <a href="#">Stone Mt. Hamfest</a> Holiday Party	Cancelled for 2021 TBD April 1-4 2021 April 10-11 2021 April 2021 May 31 2021 TBD June 26-27 2021 TBD October 16-17 2021 TBD November 6-7 2021 December 14 2021	<ul style="list-style-type: none"> <li>2nd Tuesday of the month at 7 pm (except December): Monthly Club Meeting (<a href="#">online until further notice</a>)</li> <li>3rd Tuesday of the month at 7 pm (except December): Monthly Workshop (<a href="#">online until further notice</a>)</li> <li>2nd Sunday of the Month at 2 pm (<a href="#">suspended until further notice</a>):  <a href="#">GARS Ham Exam Session</a>  Fire Station #24  2735 Mall of Georgia Blvd  Buford, GA 30519 </li> <li>Every Monday at 7:30 pm: GARS Want, Swap, Sell, and Information Net on the GARS 147.075 MHz repeater</li> <li>Every Monday at 8:30 pm: ARES Training on the GARS 147.075 MHz repeater</li> <li>Most Saturdays at 7:30 am :  GARS Weekly Breakfast  Cracker Barrel Restaurant  75 Celebration Dr., Suwanee, GA 30024 </li> </ul>	

### GARS CALENDAR FOR April 2021

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1	2	3 Breakfast at Cracker Barrel in Suwanee 7:30 AM
4	5 7:30 – 8:00 PM GARS 2M Net	6 7:00 – 8:00 PM GARS Exec Meeting (Online)	7	8	9	10 Breakfast at Cracker Barrel in Suwanee 7:30 AM
11 GARS VE Exam Session (Cancelled)	12 7:30 – 8:00 PM GARS 2M Net	13 7:00 – 8:00 PM GARS Meeting (Online)	14	15	16	17 Breakfast at Cracker Barrel in Suwanee 7:30 AM
18	19 7:30 – 8:00 PM GARS 2M Net	20 7:00 – 8:00 PM GARS Workshop (Online)	21	22	23	24 Breakfast at Cracker Barrel in Suwanee 7:30 AM
25	26 7:30 – 8:00 PM GARS 2M Net	27	28	29	30	

## Active VE Testing Sessions

### On-Line Testing at [hamstudy.org](https://hamstudy.org)

#### So you want to take a remote exam...

If you read our recent press release then you already know about the group that grew up to take on this new challenge and it has been our privilege to provide the software that nearly all of them use.

To find an exam session, go to <https://ham.study/sessions/online>

### Cherokee Amateur Radio Society

We may only be able to accommodate a few simultaneous tests so we can maintain the safety of everyone. We recommend highly that you register if you want to be accommodated.

Register with John Reynolds (VEC) W4TXA

Phone: (770) 715-9640

Email: [wx4txa.john@gmail.com](mailto:wx4txa.john@gmail.com)

Where: Cherokee County Charter Academy. 2126 Sixes Road, Canton GA, 30114 (We will be outside, under cover sidewalk, West/Left side of Building)

Time and date: see <https://www.wx4car.org/testing2021.html>

Testing will be outdoors, but requires the wearing of a mask to keep everyone safe.

For more information, please visit their website at <https://www.wx4car.org/>

### Stephens County Amateur Radio Society

VE session (date TBD) from 1 till 4 pm in Lavonia GA at 1240 E. Main St, at the white gazebo. [Lavonia, GA is off I-85 near the Georgia / North Carolina border... - Ed.]

If you need to test please get a hold of us at ( [kr4cw1@gmail.com](mailto:kr4cw1@gmail.com) ). We are working on a 2nd test session , if you would like to be a part of it please send us a contact email to club email and will be glad to help you on the prelist of this....

We will be giving All Tests ( Tech, General, Extra ) Cost will be \$15.00 must have ID and copy of License, if you're upgrading...if it's your first time taking a test please go to the FCC website and sign up for a FRN number and create your Account. Here is the link to get started: <https://apps.fcc.gov/coresWeb/regEntityType.do>

Please make sure you print this off and bring with you, so you will have your FRN number. Without this we cannot submit your test.

Source: <http://www.sc-ars.org/>

## Local VE Sessions & Meetings

### Local VE Testing

[Please check with each session contact for current status.—Ed.]

GARS publishes Metro Atlanta VE exam schedules as a service and is not responsible for errors or changes. Call and confirm schedules before going. All sessions are walk-in, unless otherwise noted. Take copies of current license and certificate of completed elements with you to all sessions. Find additional sessions online at <http://www.arrl-ga.org>

#### First Sunday, ODD Months

2 pm (Jan, Mar, May, Jul, Sep, & Nov)

VEC: WCARS

Braselton Public Utility Building  
4986 Highway 53, Braselton, GA  
Contact: Nat Christman K4VQ, 678-371-7103  
[christmans30680@gmail.com](mailto:christmans30680@gmail.com)

#### First Sunday, EVEN Months

2 pm (Feb, Apr, Jun, Aug, Oct, Dec)

VEC: WCARS

Hall County EOC  
470 Crescent Dr. Gainesville, Ga.  
Contact: Perry Roper, KO4RD  
(770) 536-3056

#### Second Saturday

10:00 AM

Alpharetta North Park, Adult Activities Center  
13450 Cogburn Rd, Alpharetta, GA 30004  
Contact: Ian Kahn, KM4IK  
E-mail: [km4ik.ian@gmail.com](mailto:km4ik.ian@gmail.com)

#### Third Saturday, ODD Months

VEC: ARRL

9:30 am (Walk-ins welcome)  
Stone Mountain Masonic Lodge  
840 VFW Drive  
Stone Mountain, GA 30083  
Contact: Frank Haynes, KV4SP  
Email: [fhaynes@vatomom.net](mailto:fhaynes@vatomom.net)  
(678) 467-3712

#### First Sunday, EVEN Months

VEC: WCARS and W5YI

2 pm @ Barrow Co. Emerg. Serv. Bldg  
66 McElroy Street  
Winder, GA 30680  
Contact: Mike Wolcott, W4WYI  
(404) 281-6581  
E-mail: [W4WYI@ARRL.net](mailto:W4WYI@ARRL.net)

#### Fourth Tuesday

ARRL VEC

7 pm @ United Way Service Center  
6279 Fairburn Rd., Douglasville  
Contact: Jessie Clower, KB4WFK  
(770) 942-6466

#### Fourth Sunday

2:30 pm Georgia Tech  
VanLeer Elec. Building  
Rm. W218, 777 Atlantic Dr.

For more information go to [www.w4aql.com](http://www.w4aql.com) and click on "Test Sessions"

### GARS VE Testing

#### Second Sunday

VEC: W5YI

2 pm

[Although **Suspended** until further notice, check [www.gars.org](http://www.gars.org) for updates]

Contact: Dave Bruse, W4DTR

E-mail: [exams@gars.org](mailto:exams@gars.org)

No GARS VE Session.

[Other local clubs are starting to hold limited VE sessions. See the articles on page 20 in this issue of the GARzette for more details. —Ed.]

GARS VE Team Leaders

E-mail: [exams@gars.org](mailto:exams@gars.org)

GARS VE Website:

<http://gars.org/exams>



### Local Meetings

[Please check with each club for meeting schedule and method (online, etc.) - Ed.]

#### First Tuesday

Kennehoochee ARC

Fire Station #1, Training Room  
112 Haynes Street, Marietta, GA

Meeting begins at 7:00pm

Talk In 146.880(-)

#### First Thursday

Atlanta Radio Club

Georgia Red Cross HQ  
1955 Monroe Dr., Atlanta, GA  
Meeting is at 7:30pm  
Talk In -146.820(-)

N.E. Georgia ARC

Commerce Public Library  
1344 South Broad Street, Commerce, GA  
Meeting is at 6:30pm  
Talk In - 147.225(+), PL 123.0

#### Second Monday

Georgia Tech ARC

Room W218  
Van Leer Electrical Engineering Bldg.  
Georgia Tech Campus  
Meeting at 7:00pm

Sawnee Amateur Radio Association  
Beaver Toyota  
1875 Buford Highway, Cumming, GA  
Meeting at 6:30

#### Second Thursday

Alford Memorial Radio Club

Annistown Road Baptist Church

Annistown Rd & Spain Rd

Stone Mountain, GA

Dinner at 6:00pm, Meeting at 7:30pm

Talk In - 146.760(-)

#### Second Saturday

North GA QRP Club

Board Room of The Shepherd Center  
2020 Peachtree Rd, NW, Atlanta, GA  
at 10:00 AM

#### Third Tuesday

North Fulton Amateur Radio League

Alpharetta Recreation & Parks Dept.

Alpharetta Adult Activity Center

13450 Cogburn Road, Alpharetta, GA  
meeting at 7:30pm

Talk In - 145.47(-)

For more information, go to:

<http://www.gars.org/>

## GARS Supporters

[Note: Ham Radio Outlet is open to limited walk-in traffic! Masks are required.]

### Serving You From Coast to Coast and Around the World



**Order Toll-Free From a Location Near You  
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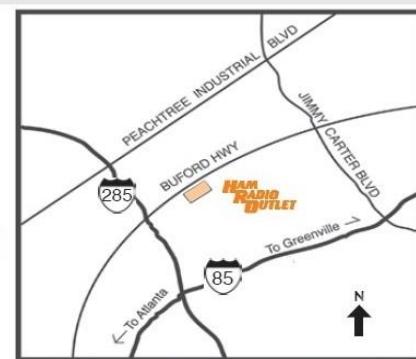


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